Appendix C5
PART I
SPECIFIC PERMIT CONDITIONS FOR NORTHERN ENGRAVING WEST SALEM

A. ***Part I.A. of this operation permit is effective so long as the permittee is operating under a Cooperative Agreement with the Department as entered into under s. 299.80 Wis. Stats. If any such Cooperative Agreement expires or is revoked for any reason, Part I.A. of this operation permit is no longer effective and Part I.B. becomes the effective operation permit for the facility. If any such Cooperative Agreement expires or is revoked for any reason, the permittee shall comply with any delayed compliance deadlines and practical interim requirements established by the Department in a written revocation decision until the Department issues the approvals required under chs. 280 to 295, Wis. Stats, that were replaced by the above referenced Cooperative Agreement.***

1. **Volatile Organic Compound Emissions**

a. **Limitations:**

(1) The total volatile organic compound emissions from the facility may not exceed 85 tons for each 12 consecutive month period. [s. 299.80(4)(b), Wis. Stats and s. 285.65(7), Wis. Stats.]

(2) The volatile organic compound emissions from process P149 (One Roll Coating Machine) may not exceed 1666 pounds per month. (Note: This limitation is necessary for this process to be exempt from construction permit requirements.) [s. NR 406.04(1)(g), Wis. Adm. Code]

b. **Compliance Demonstration Methods:**

(1) Each month the permittee shall calculate the total volatile organic compound emissions from the facility as follows:

$$E = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + ... + (U_n \times W_n \times C_n)] - [(S_1 \times P_1) + (S_2 \times P_2) + ... + (S_m \times P_m)]\}$$

where:
E is the monthly VOC emissions (tons/month);
U is the monthly usage of each ink, coating, solvent, or other VOC containing material used during the month (gallons/month);
W is the density of each ink, coating, solvent, or other VOC containing material used during the month (pounds/gallon)
C is the VOC content of each ink, coating, solvent, or other VOC containing material used during the month expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25);
n identifies each ink, coating, solvent or other VOC containing material used during the month;
S is the amount of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month (gallons/month);
P is the VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month in pounds per gallon;
m identifies each spent ink, coating, solvent or other VOC containing material recovered and shipped off site during the month.
[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(2) To demonstrate compliance with condition I.A.1.a.(1), the permittee shall calculate the total volatile organic compound emissions from the facility over each 12 consecutive month period by summing the monthly volatile organic compound emissions as calculated in I.A.1.b.(1) for each consecutive 12 month period. This calculation

shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

(3) The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content (C_n) and the density (W_n) of the of the inks, coatings, solvents or other VOC containing materials used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

(4) The permittee shall analyze the spent ink, coating, solvent and other VOC containing material recovered and shipped off site to determine the VOC content (P) no less than: (a) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

(5) To demonstrate compliance with condition I.A.1.a.(2) the permittee shall calculate the total monthly volatile organic compound emissions from process P149 as follows: [s. NR 407.09(4)(a)1., Wis. Adm. Code]

$$E_{monthly} = [(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + ... + (U_n \times W_n \times C_n) +]$$

where:
$E_{monthly}$ is the monthlyVOC emissions (pounds/month);
U is the amount of each ink, coating, clean-up solvent, or other VOC containing material used on process P149 during the month (gallons/month);
W is the density of each ink, coating, clean-up solvent, or other VOC containing material used on process P149 during the month (pounds/gallon);
C is the VOC content of each ink, coating, clean-up solvent, or other VOC containing material used on process P149 during the month expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25);
n identifies each ink, coating, clean-up solvent or other VOC containing material used on process P149 during the month.

This calculation shall be performed within twenty calendar days of the end of each calendar month.

c. Record Keeping and Monitoring Requirements:

(1) The permittee shall keep records of the following for each ink, coating, solvent, or other VOC containing material used at the facility:
(a) A unique name or identification number; and
(b) The VOC content, expressed as a weight fraction (C_n).
[s. NR 439.04(1)(d), Wis. Adm. Code]

(2) The permittee shall keep monthly records of:
(a) The amount of each ink, coating, solvent, or other VOC containing material used in gallons per month (U_n);
(b) The density of each ink, coating, solvent, or other VOC containing material used in pounds per gallon (W_n);
(c) The amount of spent ink, coating, solvent, or other VOC containing material recovered and shipped off site in gallons per month (S_m);
(d) The VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site in pounds per gallon (P_m).
(e) The total monthly VOC emissions from the facility in tons per month (E), as calculated in I.A.1.b.(1); and
(f) The total VOC emissions from the facility in tons per year as calculated in I.A.1.b.(2).
[s. NR 439.04(1)(d), Wis. Adm. Code]

(3) To demonstrate compliance with condition I.A.1.a.(2) the permittee shall keep records of the following for process P149:
(i) A unique name or identification number for each ink, coating, clean-up solvent, or other VOC containing material used on process P149;
(ii) The VOC content, expressed as a weight fraction (C_n) of each ink, coating, clean-up solvent, or other VOC containing material used on process P149;

(iii) The amount of each ink, coating, clean-up solvent, or other VOC containing material used on process P149 in gallons per month (U_n);
(iv) The density of each ink, coating, clean-up solvent, or other VOC containing material used on process P149 in pounds per gallon (W_n); and
(v) The total monthly VOC emissions from process P149 in pounds per month ($E_{monthly}$), as calculated in I.A.1.b.(5).
[s. NR 439.04(1)(d), Wis. Adm. Code]

d. Reference Test Methods:

(1) Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Method 18, 25, 25A or 25B shall be used to demonstrate compliance. [s. NR 439.06(3)(a), Wis. Adm. Code]

(2) Reference Test Method for Volatile Organic Compound Content: Whenever VOC content testing is required, US EPA Method 24 or 24A shall be used to determine the organic solvent content, the volume of solids, the weight of solids, the water content and the density of inks. [s. NR 439.06(3)(b), Wis. Adm. Code]

2. Hazardous Air Pollutant Emissions

a. Limitations:

(1) The emissions of each hazardous air pollutant regulated by the Clean Air Act shall be less than 8 tons for each 12 consecutive month period. [s. 299.80(4)(b), Wis. Stats.] [s. 285.65(7), Wis. Stats.]

(2) The total emissions of all hazardous air pollutants regulated by the Clean Air Act combined shall be less than 20 tons for each 12 consecutive month period. [s. 299.80(4)(b), Wis. Stats.] [s. 285.65(7), Wis. Stats.]

b. Compliance Demonstration Methods:

(1) Each month the permittee shall calculate the total emissions of each hazardous air pollutant from the facility regulated by the Clean Air Act as follows:[1] [s. NR 407.09(4)(a)1., Wis. Adm. Code]

$$E_x = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times H_1) + (U_2 \times W_2 \times H_2) + ... + (U_n \times W_n \times H_n)] - [(S_1 \times I_1) + (S_2 \times I_2) + ... + (S_m \times I_m)]\}$$

where:
E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month);
x identifies each HAP emitted from the facility
U is the monthly usage of each ink, coating, solvent, or other HAP containing material used during the month (gallons/month);
W is the density of each ink, coating, solvent, or other HAP containing material used during the month (pounds/gallon)
H is the HAP content of each ink, coating, solvent, or other HAP containing material used during the month expressed as a weight fraction (i.e. if a material is 25% HAP by weight H would be 0.25);
n identifies each ink, coating, solvent or other HAP containing material used during the month;
S is the amount of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month (gallons/month);
I is the HAP content of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month in pounds per gallon;
m identifies each spent ink, coating, solvent or other HAP containing material recovered and shipped off site during the month.

[1] This calculation shall be performed for each hazardous air pollutant regulated by the Clean Air Act that is emitted from the facility.

(2) To demonstrate compliance with condition I.A.2.a.(1), the permittee shall calculate the emissions of each hazardous air pollutant regulated by the Clean Air Act over each 12 consecutive month period by summing the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act as calculated in I.A.2.b.(1) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

(3) Each month the permittee shall calculate the total emissions of hazardous air pollutants regulated by the Clean Air Act as follows:

$E_{hap} = \Sigma E_x$

where:
E_{hap} is the monthly total emissions of all hazardous air pollutants regulated by the Clean Air Act that are emitted by the facility (tons/month);
E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month) as calculated in I.A.2.b.(1);
x identifies each HAP emitted from the facility.
[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(4) To demonstrate compliance with condition I.A.2.a.(2), the permittee shall calculate the total emissions of all hazardous air pollutants regulated by the Clean Air Act over each 12 consecutive month period by summing the monthly emissions of all hazardous air pollutants regulated by the Clean Air Act as calculated in I.A.2.b.(3) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

(5) The permittee shall use coating manufacturer's formulation data to determine the HAP content (H_n) of the of the inks, coatings, solvents or other HAP containing materials used. [s. NR 439.04(1)(d), Wis. Adm. Code]

(6) The permittee shall analyze the spent ink, coating, solvent and other HAP containing material recovered and shipped off site to determine the HAP content (H) no less than: (a) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

c. Record Keeping and Monitoring Requirements:

(1) The permittee shall keep records of the following for each ink, coating, solvent, or other HAP containing material used at the facility:
(a) A unique name or identification number; and
(b) The weight fraction of each HAP contained in the material (H_n).
[s. NR 439.04(1)(d), Wis. Adm. Code]

(2) The permittee shall keep monthly records of:
(a) The amount of each ink, coating, solvent, or other HAP containing material used in gallons per month (U_n);
(b) The density of each ink, coating, solvent, or other HAP containing material used in pounds per gallon (W_n);
(c) The amount of spent ink, coating, solvent, or other HAP containing material recovered and shipped off site in gallons per month (S_m);
(d) The amount of each HAP contained in each spent ink, coating, solvent or other HAP containing material recovered and shipped off site in pounds per gallon (I_m);
(e) The facility total monthly emissions of each HAP in tons per month (E_x), as calculated in I.A.2.b.(1);
(f) The total monthly HAP emissions from the facility in tons per month (E_{hap}), as calculated in I.A.2.b.(3);
(g) The facility total emissions of each HAP in tons per year as calculated in I.A.2.b.(2).
(h) The total HAP emissions from the facility in tons per year as calculated in I.A.2.b.(4).
[s. NR 439.04(1)(d), Wis. Adm. Code]

d. Reference Test Methods:

(1) Reference Test Method for Hazardous Air Pollutant Emissions: Whenever compliance emission testing is required, a method approved by the Department in writing shall be used to demonstrate compliance. [s. NR 439.06(8), Wis. Adm. Code]

3. Particulate Matter Emissions

a. Particulate Matter Emission Limitations:	b. Compliance Demonstration Methods:	c. Record Keeping and Monitoring:
(1) Particulate matter emissions from each of boilers **B20 and B21** may not exceed 0.15 pounds per million Btu heat input. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(1)** The permittee shall only fire natural gas and/or propane in each boiler (B20 and B21).[2] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(1)** The permittee shall retain on site, plans and specifications that indicate each boiler's fuel usage design capabilities.[3] [s. NR 439.04(1)(d), Wis. Adm. Code]
(2) Particulate matter emissions from **P76** may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(2)** The permittee shall only fire natural gas and/or propane in the curing oven associated with P76.[4] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(2)** The permittee shall retain on site, plans and specifications that indicate the curing oven's fuel usage design capabilities.[5] [s. NR 439.04(1)(d), Wis. Adm. Code]
(3) Particulate matter emissions from **P28** may not exceed 0.15 pounds per mmBtu.	**(3)** The permittee shall only fire natural gas and/or propane in the curing oven associated	**(3)** The permittee shall retain on site, plans and specifications that indicate

[2] Because the emission limitations listed in I.B.1.b.(1)(a) are equal to the maximum theoretical emissions for each boiler while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[3] These plans and specifications are sufficient because each boiler is designed to only burn natural gas and/or propane.

[4] Because the emission limitation in I.B.9.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[5] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

[6] Because the emission limitation in I.B.8.b.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

a. Particulate Matter Emission Limitations:	b. Compliance Demonstration Methods:	c. Record Keeping and Monitoring:
[s. NR 415.06(2)(a), Wis. Adm. Code]	with P28.[6] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	the curing oven's fuel usage design capabilities.[7] [s. NR 439.04(1)(d), Wis. Adm. Code]
(4) Particulate matter emissions from **P29** may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(4)** The permittee shall only fire natural gas and/or propane in the curing oven and thermal oxidizer associated with P29.[8] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(4)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and the curing oven's fuel usage design capabilities.[9] [s. NR 439.04(1)(d), Wis. Adm. Code]
(5) Particulate matter emissions from **P37** may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(5)** The permittee shall only fire natural gas and/or propane in the curing oven and thermal oxidizer associate with P37.[10] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(5)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and the curing oven's fuel usage design capabilities.[11] [s. NR 439.04(1)(d),

[7] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

[8] Because the emission limitation in I.B.9.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[9] These plans and specifications are sufficient because the curing oven and the thermal oxidizer are designed to only burn natural gas and/or propane.

[10] Because the emission limitation in I.B.8.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[11] These plans and specifications are sufficient because the curing oven and the thermal oxidizer are designed to only burn natural gas and/or propane.

a. Particulate Matter Emission Limitations:	b. Compliance Demonstration Methods:	c. Record Keeping and Monitoring:
		Wis. Adm. Code]
(6) Particulate matter emissions from **P56** may not exceed the most restrictive of:[12] (a) 0.40 pounds per 1000 pounds gas; (b) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(6)** The permittee shall operate overspray filters to control particulate matter emissions whenever the P56 is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(7)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.4 inches of water and not greater than 0.9 inches of water or within a different normal operating range approved by the Department in writing, whenever P56 is operating. [s. NR 407.09(1), Wis. Adm. Code] **(8)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(6)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(7)** The permittee shall keep records of the results of the inspections required by I.A.3.b.(8) which include: (a) the date of the inspection; (b) the initials of the individual performing the inspection; (c) a description of the findings of the inspection; (d) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]
(7) Particulate matter emissions from **P108** may not exceed the most restrictive of:[13] (a) 0.40 pounds per 1000 pounds gas; (b) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 0.22 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(9)** The permittee shall operate a paint overspray filter system to control particulate matter emissions whenever P108 is in operation. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(10)** The permittee shall maintain the pressure drop across the overspray filter system within the normal operating ranges established according to the schedule outlined in I.B.19.c.(1)(a), whenever P108 is operating. [s. NR 407.09(1), Wis. Adm. Code]	**(8)** The permittee shall monitor and record the pressure drop across each paint overspray filter system once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code]
(8) Particulate matter emissions from **P113** may not exceed the most restrictive of:[14] (i) 0.40 pounds per 1000 pounds gas;	**(11)** The permittee shall operate a paint overspray filter system to control particulate matter emissions whenever P113 is in operation. [ss. NR 407.09(1)(c)1.b., Wis.	**(9)** The permittee shall monitor and record the pressure drop across each paint overspray filter system once for every 8 hours of operation or once per

[12] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.3 tons per hour, a stack gas flow rate of 10,500 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

[13] The limitation of 0.22 pounds per hour was determined as part of the review for construction permit 93-POY-092 and is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

a. Particulate Matter Emission Limitations:	b. Compliance Demonstration Methods:	c. Record Keeping and Monitoring:
(ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 0.33 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(12)** The permittee shall maintain the pressure drop across the overspray filter system within the normal operating ranges established according to the schedule outlined in I.B.19.c.(1)(a), whenever P113 is operating. [s. NR 407.09(1), Wis. Adm. Code]	day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code]
(9) Particulate matter emissions from **P134** may not exceed the most restrictive of:[15] (a) 0.40 pounds per 1000 pounds gas; (b) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(13)** The permittee shall operate overspray filters to control particulate matter emissions whenever P134 is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(14)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.05 inches of water and not greater than 0.8 inches of water or within a differnt normal operating range approved by the Department in writing, whenever P134 is operating. [s. NR 407.09(1), Wis. Adm. Code] **(15)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(10)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(11)** The permittee shall keep records of the results of the inspections required by I.A.3.b.(15) which include: (a) the date of the inspection; (b) the initials of the individual performing the inspection; (c) a description of the findings of the inspection; (d) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]
(10) Particulate matter emissions from **P139** may not exceed the most restrictive of:[16] (a) 0.40 pounds per 1000 pounds gas;	**(16)** The permittee shall operate overspray filters to control particulate matter emissions whenever P139 is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and	**(12)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day

[14] The limitation of 0.33 pounds per hour was determined as part of the review for construction permit 93-POY-092 and is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

[15] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.3 tons per hour, a stack gas flow rate of 9000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

[16] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.2 tons per hour, a stack gas flow rate of 10,000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

a. Particulate Matter Emission Limitations:	b. Compliance Demonstration Methods:	c. Record Keeping and Monitoring:
(b) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	285.65(3) and 285.63(1)(a), Wis. Stats.] **(17)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.05 inches of water and not greater than 0.7 inches of water or within a different normal operating range approved by the Department in writing, whenever P139 is operating. [s. NR 407.09(1), Wis. Adm. Code] **(18)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(13)** The permittee shall keep records of the results of the inspections required by I.A.3.b.(18) which include: (a) the date of the inspection; (b) the initials of the individual performing the inspection; (c) a description of the findings of the inspection; (d) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]
(11) Particulate matter emissions from **P145** may not exceed the most restrictive of:[17] (a) 0.40 pounds per 1000 pounds gas; (b) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 1.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(19)** The permittee shall operate overspray filters to control particulate matter emissions whenever P145 is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(20)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.02 inches of water and not greater than 0.35 inches of water or within a different normal operating ranges approved by the Department in writing, whenever P145 is operating. [s. NR 407.09(1), Wis. Adm. Code] **(21)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(14)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(15)** The permittee shall keep records of the results of the inspections required by I.A.3.b.(21) which include: (a) the date of the inspection; (b) the initials of the individual performing the inspection; (c) a description of the findings of the inspection; (d) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

d. Reference Test Methods:

(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code]

[17] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 1.0 tons per hour, a stack gas flow rate of 12,000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 1.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

4. Formaldehyde Emissions*

a. Limitations:

(1) * The permittee may not emit formaldehyde at a rate greater than 20.8 pounds per month averaged over each 12 consecutive month period. [s. 285.65.(7), Wis. Stats.]

b. Compliance Demonstration Methods:

(1) * Each month the permittee shall calculate the total facility emissions of formaldehyde as follows:

$$E_{form} = [(V_1 \times W_1 \times F_1) + (V_2 \times W_2 \times F_2) + ... + (V_n \times W_n \times F_n)] - [(R_1 \times G_1) + (R_2 \times G_2) + ... + (R_m \times G_m)]$$

where:
E_{form} is the monthly emissions of formaldehyde (pounds/month);
x identifies each HAP emitted from the facility
V is the monthly usage of each ink, coating, solvent, and other material containing formaldehyde used during the month (gallons/month);
W is the density of each ink, coating, solvent, or other material containing formaldehyde used during the month (pounds/gallon);
F is the formaldehyde content of each ink, coating, solvent, or other material containing formaldehyde used during the month expressed as a weight fraction (i.e. if a material is 25% formaldehyde by weight F would be 0.25);
n identifies each ink, coating, solvent or other material containing formaldehyde used during the month;
R is the amount of each spent ink, coating, solvent or other material containing formaldehyde recovered each month to be shipped off site (lbs/month);
G is the formaldehyde content of each spent ink, coating, solvent or other material containing formaldehyde recovered each month to be shipped off site expressed as a weight fraction (i.e. if a spent material is 25% formaldehyde by weight G would be 0.25);
m identifies each spent ink, coating, solvent or other material containing formaldehyde recovered each month to be shipped off site during.
[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(2) *To demonstrate compliance with condition I.A.4.a.(1), the permittee shall calculate the emissions of formaldehyde, averaged over each 12 consecutive month period by dividing the total monthly emissions of formaldehyde as calculated in I.A.4.b.(1) for each 12 consecutive month period by 12. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

c. Record Keeping and Monitoring Requirements:

(1) *The permittee shall keep monthly records of the following:
(a) A unique name or identification number for each ink, coating, solvent, or other material containing formaldehyde used at the facility;
(b) The weight fraction of formaldehyde (F_n) of each ink, coating, solvent, or other material used at the facility;
(c) The amount of each ink, coating, solvent, or other material containing formaldehyde used in gallons per month (V_n);
(d) The density of each ink, coating, solvent, or other material containing formaldehyde used in pounds per gallon (W_n);
(e) The amount of spent ink, coating, solvent, or other material containing formaldehyde recovered each month to be shipped off site in pounds per month (R_m);
(f) The weight fraction of each spent ink, coating, solvent or other material containing formaldehyde recovered each month to be shipped off site, expressed as a weight fraction (G_m);
(g) The facility total monthly emissions of formaldehyde in pounds per month (E_{form}), as calculated in I.A.4.b.(1); and
(h) The total amount of formaldehyde emitted from the facility averaged over each 12 consecutive month period in tons per month as calculated in I.A.4.b.(2).

[s. NR 439.04(1)(d), Wis. Adm. Code]

(2) *The permittee shall use coating manufacturer's formulation data to determine the formaldehyde (F_n) of the of the inks, coatings, solvents or other materials containing formaldehyde used at the facility. [s. NR 439.04(1)(d), Wis. Adm. Code]

(3) *The permittee shall analyze the spent ink, coating, solvent and other materials containing formaldehyde recovered and shipped off site to determine the HAP content (G) no less than: (i) each time there is a change to materials or process operations that may affect the waste stream; or (ii) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

d. Reference Test Methods:

(1) Reference Test Method for Formaldehyde Emissions: Whenever compliance emission testing is required, US EPA Method 0011 shall be used to demonstrate compliance. [s. NR 439.06(8), Wis. Adm. Code]

5. Visible Emissions

a. Limitations:

(1) The visible emissions from stacks exhausting the emissions units at the facility may not exceed 20% opacity. [s. NR 431.05, Wis. Adm. Code]

b. Compliance Demonstration Methods:

(1) The compliance demonstration methods listed for particulate matter emissions in I.A.3.b.(1) through (21) shall also serve as compliance demonstration methods for the visible emissions limitations in I.A.5.a.(1). [s. NR 407.09(4), Wis. Adm. Code]

c. Record Keeping and Monitoring Requirements:

(1) The record keeping and monitoring requirements listed for particulate matter emissions in I.A.3.c.(1) through (15) shall also serve as the record keeping and monitoring requirements for the visible emission limitations in I.A.5.a.(1). [s. NR 407.09(1)(c)1., Wis. Adm. Code]

d. Reference Test Methods:

(1) Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

6. Operational Flexibility

a. New Equipment Construction and Modification: The permittee may commence construction or modification (but not operation) of new process equipment prior to obtaining a construction permit, provided the following conditions are met. The following conditions do not apply if a proposed project is exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(1) The permittee shall submit the following information to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the Department:
(a) Two copies of a complete construction and operation permit application describing the proposed equipment;
(b) An application fee of $1350 or other amount as required by s. NR 410.03(1)(d), Wis. Adm. Code; and
(c) Information describing how the interested persons group was notified of the proposed project.
[ss. 299.80(10) and (11)(b), Wis. Stats.]

(2) The Department shall process the permit application in accordance with ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code, however, the permittee need not wait for permit issuance to commence construction. The Department shall process the permit application as both a construction permit and a

significant revision to this operation permit and issue both permits simultaneously to reduce the administrative burden of issuing a construction permit that expires 18 months after issuance followed by an operation permit. The Department shall send an invoice outlining the fees required for processing the construction permit for the proposed project, including the fees for an expedited permit review authorized by s. NR 410.03(o), Wis. Adm. Code, less the $1350 permit application fee. [ss. 299.80(2)(h), (4)(b), (10) and (11)(b), Wis. Stats.]

(3) The permittee shall pay the total amount of the fee invoice within 30 days of receipt.[18] [s. 299.80(10), Wis. Stats.]

(4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.[19] [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(5) Nothing in this section or in any Cooperative Agreement between the Department and the permittee shall be construed as a guarantee that the Department will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the Department denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction of the equipment in question immediately.

b. **New Equipment Operation:** The permittee may operate new process equipment, provided one of the following alternate scenarios are met. The following conditions do not apply if a proposed project is exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(1) *Alternate Scenario #1:* The permittee may operate new process equipment provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.6.a. and the Department issues a construction permit pursuant to ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code. The permittee shall operate the new process equipment in compliance with the conditions contained in any construction permit issued by the Department. [s. NR 406.03, Wis. Adm. Code]

(2) *Alternate Scenario #2:* The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as

---

[18] Pursuant to s. 299.80(10), Wis. Stats., a participant in a cooperative agreement shall pay the same fees required under chs. 280 to 295, Wis. Stats. that it would be required to pay if it had not entered into a cooperative agreement. Therefore, while the requirement to obtain a construction permit prior to installation is waived, the permittee is still required to pay the fees that would have been assessed had a construction permit been issued under ch. NR 406, wis. Adm. Code.

[19] By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.6.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

required by the conditions of I.A.6.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(a) The permittee shall submit two copies of the following information to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the Department, 14 calendar days prior to the date of initial operation:
   (i) Information identifying all applicable requirements from the Wisconsin Statutes, Wisconsin Administrative Code, and federal Clean Air Act for the proposed equipment;
   (ii) A quantification of the air pollution emissions that would result from the proposed project;
   (iii) A computer dispersion modeling analysis showing the National Ambient Air Quality Standards will be protected if the proposed project results in an increase in potential particulate matter, sulfur dioxide, nitrogen oxide, and/or carbon monoxide emissions.
   (iv) A computer dispersion modeling analysis showing the Acceptable Ambient Concentrations will be protected if the proposed project results in an increase in emissions of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code so that the resulting facility total emissions of the hazardous air pollutant are above the corresponding Table Value(s) OR results in the emission of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code that was not previously emitted, at a rate greater than its corresponding Table Value(s); and
   (v) An analysis showing the proposed project will not cause the total facility wide potential emissions of particulate matter, sulfur dioxide, nitrogen oxides or carbon monoxide to exceed 100 tons per year. Any proposed new or relocated source that will result in the facility wide potential emissions of any one of these pollutants exceeding 100 tons per year is not eligible for this waiver. If the facility wide potential emissions of any one of the pollutants would be greater than 100 tons per year as the result of a proposed project, the permittee shall comply with the construction permit requirements outlined in ch. NR 406, Wis. Adm. Code and the significant operation permit revision requirements of s. NR 407.13, Wis. Adm. Code.[20]

   [ss. 299.80(10) and (11)(b), Wis. Stats.]

(b) The Department has 14 calendar days from the date that all the information outlined in (a) is received to request additional information or object to the proposed project. If the Department requests additional information during the original 14 calendar day period the Department shall have an additional 7 calendar days from the date of receipt of the information to request additional information or object to the proposed project. Under no scenario shall the Department have less than 14 days to review original submittal. If the Department does not respond within 14 calendar days from the date that all the information outlined in (a) is submitted, or within 7 days from the date that any additional information requested by the Department is submitted, whichever is later, the permittee may commence initial operation of the proposed equipment. The Department may provide written approval to commence initial operation of the proposed equipment prior to the end of the 14 calendar day period. If this is the case the permittee may commence initial operation upon receipt of this written approval. [ss. 299.80(2)(h) and (11)(b), Wis. Stats.]

(3) *Alternate Scenario #3:* The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.6.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

[20] This requirement is necessary because if the potential emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeds 100 tons the facility would be considered a major source for Part 70 purposes and would be required to obtain either a Part 70 source permit or a synthetic minor, non-Part 70 source permit containing conditions that limit the potential emissions of all criteria pollutants to less than 100 tons per year.

(a) The Department provides written approval to commence initial operation of the proposed equipment. This written approval shall only be provided after the Department completes an air quality dispersion modeling analysis to ensure that the national ambient air quality standards and acceptable ambient concentrations will be protected while the proposed equipment is operating;
(b) The permittee shall comply with any specific conditions included in the Department's written approval to commence initial operation;

(4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.[21] [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(5) Nothing in this section or in any Cooperative Agreement between the Department and the permittee shall be construed as a guarantee that the Department will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the Department denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction and/or operation of the equipment in question immediately.

7. Facility Wide Reporting Requirements

a. Submit the results of monitoring or a summary of monitoring results required by Part I.A. of this permit to the Department annually.
(1) The time period to be addressed by the submittal are: January 1 to December 31.
(2) The report shall be submitted to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI 54601, phone (608) 785-9000 within 30 days after the end of each reporting period.
(3) All deviations from and violations of applicable requirements shall be clearly identified in the submittal.
(4) Each submittal shall be certified by a responsible official as to the truth, accuracy and completeness of the report.
[s. NR 439.03(1)(b), Wis. Adm. Code]

b. Submit a certification of compliance with the requirements of Part I.A. of this permit to the Department annually.
(1) The time period to be addressed by the report is the January 1 to December 31 period which precedes the report.
(2) The report shall be submitted to the Wisconsin Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI 54601, phone (608) 785-9000 within 30 days after the end of each reporting period.
(3) The information included in the report shall comply with the requirements of Part II Section N of this permit.
(4) Each report shall be certified by a responsible official as to the truth, accuracy and completeness of the report.
[s. NR 439.03(1)(c), Wis. Adm. Code]

---

[21] By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.6.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

c. Report actual facility wide volatile organic compound and hazardous air pollutant emissions as follows:

(1) The permittee shall submit a report summarizing the actual, facility wide volatile organic compound and hazardous air pollutant emissions for each consecutive 12 month period as calculated in conditions I.A.1.b.(2) and I.A.2.b.(2) and (4), every 6 months.

(2) The period addressed by the report shall be the 6 month period starting on the date the Cooperative Agreement is signed or other date agreed upon and approved by DNR, U.S. EPA and the permittee, and each subsequent 6 month period thereafter.

(3) A copy of the report shall be submitted to the DNR (Marty Sellers, Air Management Engineer, Department of Natural Resources, 3550 Mormon Coulee Road, La Crosse, WI 54601) and the U.S. EPA (Steve Rothblatt, Branch Chief, Air Program Branch, U.S. EPA, 77 W. Jackson Blvd., Mailcode: AR-18J, Chicago, IL 60604) within twenty days following the end of the reporting period.

(4) If the report shows the actual facility wide volatile organic compound or hazardous air pollutant emissions have exceeded 50 percent of the allowable limitations outlined in conditions I.A.1.a and I.A.2.a.(1) and (2), the permittee shall provide an explanation why emissions reached the levels that they did and how they intend to ensure emissions will not exceed the allowable limitations outlined in conditions I.A.1.a. and I.A.2.a.(1) and (2).

[s. NR 439.03(1)(a), Wis. Adm. Code]

8. <u>Compliance Testing Requirements</u>

a. Whenever compliance emission tests are required by the Department:

(1) Any compliance emission tests required by the Department shall be conducted while operating at 100% capacity. If operation at 100% capacity is not feasible, the sources shall operate at a capacity which is approved by the Department in writing.

(2) The reference test methods outlined in this permit shall be used unless an alternate, U.S. EPA approved, test method is approved by the Department in writing.

(3) The Department shall be informed at least 20 working days prior to any tests so a Department representative can witness the testing.

(4) At the time of notification, a compliance test plan shall also be submitted for approval.

(5) Two copies of the report on any required tests shall be submitted to the Department for evaluation within 60 days after the tests.

[s. NR 439.07, Wis. Adm. Code]

B. ***Part I.A. of this operation permit is effective so long as the permittee is operating under a Cooperative Agreement with the Department as entered into under s. 299.80 Wis. Stats. If any such Cooperative Agreement expires or is revoked for any reason, Part I.A. of this operation permit is no longer effective and Part I.B. becomes the effective operation permit for the facility. If any such Cooperative Agreement expires or is revoked for any reason, the permittee shall comply with any delayed compliance deadlines and practical interim requirements established by the Department in a written revocation decision until the Department issues the approvals required under chs. 280 to 295, Wis. Stats, that were replaced by the above referenced Cooperative Agreement.***

1. B20, Stack S10 - Natural Gas/Propane Boiler Rated at 10.5 mmBtu/hr - Installed 1977
B21, Stack S10 - Natural Gas/Propane Boiler Rated at 10.5 mmBtu/hr - Installed 1977

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions from each boiler may not exceed 0.15 pounds per million Btu heat input. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in each boiler.[22] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate each boiler's fuel usage design capabilities.[23] [s. NR 439.04(1)(d), Wis. Adm. Code]
b. Visible	**(a)** 20% opacity [s. NR	**(a)** The permittee shall only fire natural	**(a)** Reference Test Method for Visible Emissions: Whenever compliance

[22] Because the emission limitations listed in I.B.1.b.(1)(a) are equal to the maximum theoretical emissions for each boiler while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[23] These plans and specifications are sufficient because each boiler is designed to only burn natural gas and/or propane.

[24] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing these fuels. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
Emissions	431.05, Wis. Adm. Code]	gas and/or propane in each boiler. [24] [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]	emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate each boiler's fuel usage design capabilities.[25] [s. NR 439.04(1)(d), Wis. Adm. Code]

[25] These plans and specifications are sufficient because each boiler is designed to only burn natural gas and/or propane.

2. P70, Stack S15 - Sixteen Pad Printers (PPP-WS-44 through PPP-WS-47, PPP-WS-69 through PPP-WS-71, PPP-WS-98 through PPP-WS-102, and PPP-WS-118 through PPP-WS-121) - Installed 1989-1994

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: The permittee may not use coatings or inks with a VOC content greater than 6.5 pounds per gallon as applied. [s. NR 424.03(2)(b), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.2.a.(3)(c) and (d) to demonstrate compliance with I.B.2.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall keep the following records for each ink and other VOC containing materials used on P70: (i) A unique name of identification number for each ink and other VOC containing material, as applied; and (ii) The VOC content of each ink and other VOC containing material, as applied, in pounds per gallon for inks used. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

3. P76, Stack S16 - One Plastic Parts Roll Coater with a natural gas/propane fired drying oven rated at 2.25 mmBtu/hr - Installed 1998

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven.[26] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the curing oven's fuel usage design capabilities.[27] [s. NR 439.04(1)(d), Wis. Adm. Code]
b. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: (i) When coating plastic parts the VOC content of the coatings applied on this process may not exceed 6.8 lb/gal, as applied;[28] and	**(a)** The permittee shall maintain the records required by I.B.3a.(3)(c) and (d) to demonstrate compliance with I.B.3.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code]

[26] Because the emission limitation in I.B.3.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[27] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

[28] The applicant has demonstrated that 85% control of this source is infeasible. The limitation represents LACT for this source.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
Continued on Next Page...	(ii) The permittee may not use more than 1,333 gallons of ink per month, as determined by an average over any 12 consecutive months.[29] [s. NR 424.03(2)(c), Wis. Adm. Code and s. 285.65(10), Wis. Stats.]		**(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code]

[29] This condition documents the restriction requested by the permittee which was used for the determination of the feasibility of 85% control.

3. P76, Stack S16 - One Plastic Parts Roll Coater with a natural gas/propane fired drying oven rated at 2.25 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued)	**(b)** When coating metal parts with baked or specially cured coating technology the permittee may not cause, allow or permit the emissions of any VOCs in excess of: (i) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (ii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (iii) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis Adm. Code]	**(b)** The permittee shall comply with the limitations of I.B.3.b.(1)(b) by the application of low solvent content coating technology [s. NR 422.04(2)(a), Wis. Adm. Code]	**(c)** The permittee shall keep the following records for each coating and other VOC containing materials used on P76: (i) A unique name of identification number for each ink and other VOC containing material, as applied; (ii) The VOC content of each ink and other VOC containing material, as applied, in pounds per gallon for inks used; (iii) The amount of each ink and other VOC containing material used on P76 during each calendar month; and (iv) The twelve month rolling average monthly coating usage. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven. [30] [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the curing oven's fuel usage design capabilities.[31] [s. NR 439.04(1)(d), Wis. Adm. Code]

[30] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing these fuels. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

[31] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

4. P77, Stack S17 - Miscellaneous Facility Wide Cleanup

Because cleanup is performed using a wipe cleaning operation and the facility is located outside of Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington or Waukesha counties, it is exempt from the requirements of s. NR 423.03, Wis. Adm. Code, pursuant to s. NR 423.03(2)(g)1., Wis. Adm. Code. The cleanup solvent use is subject to general emission limitations for volatile organic compounds outline in ss. NR 419.03 and NR 419.04, Wis. Adm. Code which are included in Part II of this operation permit.

5. P18, Stack S18 - Five lithographic presses each with an associated UV curing oven (PLO-WS-18, PLO-WS-19, PLO-WS-20, PLO-WS-21, and PLO-WS-22) - 2 installed in 1990, 2 installed in 1996 and 1 installed in 1997

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: The permittee shall only use UV curable inks on the process. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** To demonstrate that only UV curable inks are used per condition I.B.5.a.(1)(a), the line speed through the oven shall be maintained at a minimum of 40 feet per minute. [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall monitor and record the line speed through the oven at least once per shift. [s. NR 439.04(1)(d), Wis. Adm. Code]

6. P28, Stack S28 - Two Screening Machines with a natural gas/LP drying oven rated at 3.5 mmBtu/hr - Installed 1997

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: (i) The VOC content of the inks applied on this source may not exceed 6.9 lb/gal, as applied.[32] (ii) The permittee may not use more than 1,241 gallons of ink per month, as determined by an average over any 12 consecutive months.[33] [s. NR 424.03(2)(c), Wis. Adm. Code and s. 285.65(10), Wis. Stats.]	**(a)** The permittee shall maintain the records required by I.B.6.a.(3)(c) and (d) to demonstrate compliance with I.B.6.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall keep the following records for each ink and other VOC containing materials used on P28: (i) A unique name of identification number for each ink and other VOC containing material, as applied; (ii) The VOC content of each ink and other VOC containing material, as applied, in pounds per gallon for inks used; (iii) The amount of each ink and other VOC containing material used on P38 during each calendar month; and (iv) The twelve month rolling average monthly coating usage. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

[32] The applicant has demonstrated that 85% control of this source is infeasible. The limitation represents LACT for this source.

[33] This condition documents the restriction requested by the permittee which was used for the determination of the feasibility of 85% control.

6. P28, Stack S28 - Two Screening Machines with a natural gas/LP drying oven rated at 3.5 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Particulate Matter Emissions	**(a)** Emissions may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven.[34] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the curing oven's fuel usage design capabilities.[35] [s. NR 439.04(1)(d), Wis. Adm. Code]
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[34] Because the emission limitation in I.B.6.b.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[35] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

[36] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing these fuels. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		curing ovens. [36] [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(b)** The permittee shall retain on site, plans and specifications that indicate each curing oven's fuel usage design capabilities.[37] [s. NR 439.04(1)(d), Wis. Adm. Code]

[37] These plans and specifications are sufficient because the curing oven is designed to only burn natural gas and/or propane.

7. P29, Stack S29 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.75 mmBtu/hr - Installed 1995

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven and thermal oxidizer.[38] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and the curing oven's fuel usage design capabilities.[39] [s. NR 439.04(1)(d), Wis. Adm. Code]
b. Volatile Organic Compounds	**(a)** No owner or operator of a miscellaneous metal parts or products coating line using a baked or specially cured coating technology may cause, allow or permit the emissions of any VOCs in excess of: (i) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (ii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (iii) 3.0 pounds per gallon of coating, excluding	**(a)** The permittee shall comply with the limitations of I.B.7.b.(1)(a) by one of the following methods: (i) The application of low solvent content coating technology [s. NR 422.04(2)(a), Wis. Adm. Code]; (ii) Thermal oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidizer are oxidized to non-organic compounds. [s. NR 422.04(2)(c), Wis. Adm. Code]	**(a)** The permittee shall collect and record: (i) A unique name or identification number for each coating, as applied; (ii) The VOC content of each coating, as applied, in units of pounds of VOC per gallon, excluding water. [s. NR 439.04(5)(a), Wis. Adm. Code] **(b)** The permittee shall use U.S. EPA Method 24, or ink manufacturer's formulation data to determine the VOC content of the of the inks used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s.

[38] Because the emission limitation in I.B.7.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[39] These plans and specifications are sufficient because the curing oven and the thermal oxidizer are designed to only burn natural gas and/or propane.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
Continued on Next Page...	water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis Adm. Code]	(iii) ***Continued on Next Page...***	NR 439.04(1)(d), Wis. Adm. Code]

7. P29, Stack S29 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.75 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued) *Continued on Next Page...*	**(b)** SOLVENT WASHINGS. All VOC emissions from solvent washings shall be considered in the emission limitation in condition I.B.7.b.(1)(a), unless the used wash solvent is directed into containers that prevent evaporation into the atmosphere. [s. NR 422.15(8), Wis. Adm. Code] **(c)** The permittee may not coat paper or vinyl plastic with roll coaters P29. This requirement is necessary to avoid being subject to the requirements of s. NR 422.07 or NR 422.08. [s. 285.65(3), Wis. Stats.]	***Continued from previous page...*** (iii) IN-LINE AVERAGING. The permittee may achieve compliance through a daily volume-weighted average of all coatings applied on P29 subject to the same numerical limit in I.B.7.b.(1)(a). The permittee may not cause, allow or permit the daily volume-weighted average VOC content to exceed the corresponding emission limitation in I.B.7.b.(1)(a). The daily volume-weighted average VOC content shall be calculated by using the following equation: $VOC_A = [\sum_{i=1}^{n} C_i V_i]/V_T$ where: VOC_A is the volume-weighted average VOC content of 2 or more coatings applied on P29 during any day in pounds per gallon of coating, excluding water; i is the subscript denoting an individual coating n is the number of different coating subject to the same numerical emission limit applied during any day on P29; C_i is the VOC content of each coating (i) as applied during any day on P29 in pounds per gallon of coating, excluding water; V_i is the volume of each coating (i), excluding water, as applied during any day on the P29 in gallons; V_T is the total volume of all n coatings subject to the same numerical limit in I.B.7.b.(1)(a), excluding water, applied during any day on P29 in gallons. [s. NR 422.04(1)(a), Wis. Adm. Code]	**(c)** If demonstrating compliance through the use of in-line averaging, the permittee shall collect and record the following for each day of operation: (i) The name or identification number of each coating applied on P29; (ii) The volume of each coating applied in gallons, excluding water. (iii) The daily volume-weighted average VOC content of all coatings applied on P29 as calculated under I.B.7.b.(2)(a)(iii). [s. NR 439.04(5)(g), Wis. Adm. Code] **(d)** If achieving compliance through the use of a thermal oxidizer, the permittee shall collect and record: (i) The allowable emission rate from I.B.7.b.(1)(a) in pounds per gallon of coating, excluding water; (ii) The amount of each coating in gallons, delivered to the applicator; (iii) The volume fraction of solids in each coating delivered to the applicator; (iv) The density of the VOC used in each coating or ink in pounds per gallon, delivered to the applicator; (v) The total allowable emissions as calculated under I.B.7.b.(2)(b); (vi) The actual emissions for those coatings for which allowable emissions were calculated under I.B.7.b.(2)(b) when considering the control device; (vii) A log of operating time for the capture system, control device, monitoring equipment and the associated coating line operation; (viii) A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages. [s. NR 439.04(5)(e), Wis. Adm. Code]

7. P29, Stack S29 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.75 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued) *Continued on Next Page...*		**(b)** The design, operation and efficiency of any capture system used with the incinerator required by I.B.7.b.(2)(a)(ii) shall be certified in writing by the permittee. The efficiency of the capture system is subject to approval by the Department. The efficiency of the capture system shall be great enough to insure that for any day either 95% overall control is achieved or the emissions from the controlled line are less than or equal to the amount determined using the following equation: $E = \sum_{i=1}^{n}(A_i B_i C_i / D_i)$ where: E is the total allowable daily emissions of VOCs in pounds from all coatings subject to the same numerical emission limitation applied on P29. i is the subscript denoting an individual coating; n is the number of different coatings applied; A_i is the allowable emission rate from I.B.7.b.(1)(a) in pounds per gallon of coating, excluding water, delivered to the applicator; B_i is the amount of coating in gallons, delivered to the applicator during the actual production day; D_i is the theoretical volume fraction of solids in the coating necessary to meet the allowable emission rate from I.B.7.b.(1)(a) calculated from: $D_i = 1 - [A_i/P_i]$ where P_i is the density of the VOC used in the coating delivered to the applicator during the actual production day in pounds per gallon. If the coating does not contain any VOCs, or if the actual density cannot be demonstrated by the permittee, a value of 7.36 pounds per gallon shall be used for P. [s. NR 422.04(4), Wis. Adm. Code.] **(c)** The operating temperature of the thermal incinerator shall be maintained at no less than the minimum operating temperature determined to demonstrate compliance in the most recent stack test. [s. 285.65(3), Wis. Stats and s. NR 407.09(1)(a), Wis. Adm. Code]	**(e)** If operating a thermal oxidizer to achieve compliance as required by I.B.9.b.(2)(a)(ii), the permittee shall continuously monitor and record the operating temperature of the oxidizer. [ss. NR 439.055(1) and (2), and NR 439.04(5)(e), Wis. Adm. Code] **(f)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(g)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code]

7. P29, Stack S29 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.75 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued)		**(d)** Where the requirements of I.B.7.b.(1)(a) are met by means of a natural gas fired incinerator, use of the incinerator shall be required only during the ozone season, provided that operation of the incinerator is not required for purposes of occupational health or safety or for the control of toxic of hazardous substances, malodors, or other pollutants regulated by other sections of chs. 400 to 499, Wis. Adm. Code. [s. NR 425.04(4), Wis. Adm. Code] **(e)** Compliance Testing: Compliance emission testing of the incinerator shall be conducted as follows: (i) Testing shall be conducted within 30 days of starting operation of the incinerator after the expiration or revocation of any Cooperative Agreement entered into with the Department under s. 299.80 Wis. Stats to demonstrate compliance with volatile organic compound emission limitations; (ii) In accordance with the compliance testing requirements in I.B.19.b.(1)(a). [ss. NR 439.075(1)(b) and NR 407.09(4)(a)1., Wis. Adm. Code]	**(h)** The permittee shall retain copies of the results of the tests required by I.B.7.b.(2)(e) at the facility for five years. [s. NR 439.04(1)(d), Wis. Adm. Code]
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven and the thermal oxidizer. [40] [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and curing oven's fuel usage design capabilities.[41] [s. NR 439.04(1)(d), Wis. Adm. Code]

[40] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing these fuels. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

[41] These plans and specifications are sufficient because the curing oven and thermal oxidizer are designed to only burn natural gas and/or propane.

8. P37, Stack S37 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.5 mmBtu/hr - Installed 1995

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions may not exceed 0.15 pounds per mmBtu. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven and thermal oxidizer.[42] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and the curing oven's fuel usage design capabilities.[43] [s. NR 439.04(1)(d), Wis. Adm. Code]
b. Volatile Organic Compounds *Continued on*	**(a)** No owner or operator of a miscellaneous metal parts or products coating line using a baked or specially cured coating technology may cause, allow or permit the emissions of any VOCs in excess of: (i) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (ii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (iii) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis Adm. Code]	**(a)** The permittee shall comply with the limitations of I.B.8.b.(1)(a) by one of the following methods: (i) The application of low solvent content coating technology [s. NR 422.04(2)(a), Wis. Adm. Code]; (ii) Thermal oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidizer are oxidized to non-organic compounds. [s. NR 422.04(2)(c), Wis. Adm. Code]	**(a)** The permittee shall collect and record: (i) A unique name or identification number for each coating, as applied; (ii) The VOC content of each coating, as applied, in units of pounds of VOC per gallon, excluding water. [s. NR 439.04(5)(a), Wis. Adm. Code] **(b)** The permittee shall use U.S. EPA Method 24, or ink manufacturer's formulation data to determine the VOC content of the of the inks used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

[42] Because the emission limitation in I.B.8.a.(1)(a) is equal to the maximum theoretical emissions while firing these fuels, limiting the type of fuel used is adequate to demonstrate compliance with the particulate matter emission limit. Maximum theoretical particulate matter emissions were calculated using an emission factor of 7.6 pounds per million cubic feet of natural gas fired from AP-42, 5th edition, ch. 1.4.

[43] These plans and specifications are sufficient because the curing oven and the thermal oxidizer are designed to only burn natural gas and/or propane.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
Next Page...		(iii) ***Continued on Next Page...***	

8. P37, Stack S37 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.5 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued) *Continued on Next Page...*	**(b)** SOLVENT WASHINGS. All VOC emissions from solvent washings shall be considered in the emission limitation in condition I.B.8.b.(1)(a), unless the used wash solvent is directed into containers that prevent evaporation into the atmosphere. [s. NR 422.15(8), Wis. Adm. Code] **(c)** The permittee may not coat paper or vinyl plastic with roll coaters P37. This requirement is necessary to avoid being subject to the requirements of s. NR 422.07 or NR 422.08. [s. 285.65(3), Wis. Stats.]	***Continued from previous page...*** (iii) IN-LINE AVERAGING. The permittee may achieve compliance through a daily volume-weighted average of all coatings applied on P37 subject to the same numerical limit in I.B.8.b.(1)(a). The permittee may not cause, allow or permit the daily volume-weighted average VOC content to exceed the corresponding emission limitation in I.B.8.b.(1)(a). The daily volume-weighted average VOC content shall be calculated by using the following equation: $VOC_A = [\sum_{i=1}^{n} C_i V_i]/V_T$ where: VOC_A is the volume-weighted average VOC content of 2 or more coatings applied on P37 during any day in pounds per gallon of coating, excluding water; i is the subscript denoting an individual coating n is the number of different coating subject to the same numerical emission limit applied during any day on P37; C_i is the VOC content of each coating (i) as applied during any day on P37 in pounds per gallon of coating, excluding water; V_i is the volume of each coating (i), excluding water, as applied during any day on the P37 in gallons; V_T is the total volume of all n coatings subject to the same numerical limit in I.B.8.b.(1)(a), excluding water, applied during any day on P37 in gallons. [s. NR 422.04(1)(a), Wis. Adm. Code]	**(c)** If demonstrating compliance through the use of in-line averaging, the permittee shall collect and record the following for each day of operation: (i) The name or identification number of each coating applied on P37; (ii) The volume of each coating applied in gallons, excluding water. (iii) The daily volume-weighted average VOC content of all coatings applied on P37 as calculated under I.B.8.b.(2)(a)(iii). [s. NR 439.04(5)(g), Wis. Adm. Code] **(d)** If achieving compliance through the use of a thermal oxidizer, the permittee shall collect and record: (i) The allowable emission rate from I.B.8.b.(1)(a) in pounds per gallon of coating, excluding water; (ii) The amount of each coating in gallons, delivered to the applicator; (iii) The volume fraction of solids in each coating delivered to the applicator; (iv) The density of the VOC used in each coating or ink in pounds per gallon, delivered to the applicator; (v) The total allowable emissions as calculated under I.B.8.b.(2)(b); (vi) The actual emissions for those coatings for which allowable emissions were calculated under I.B.8.b.(2)(b) when considering the control device; (vii) A log of operating time for the capture system, control device, monitoring equipment and the associated coating line operation; (viii) A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages. [s. NR 439.04(5)(e), Wis. Adm. Code]

8. P37, Stack S37 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.5 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued) *Continued on Next Page...*		**(b)** The design, operation and efficiency of any capture system used with the incinerator required by I.B.8.b.(2)(a)(ii) shall be certified in writing by the permittee. The efficiency of the capture system is subject to approval by the Department. The efficiency of the capture system shall be great enough to insure that for any day either 95% overall control is achieved or the emissions from the controlled line are less than or equal to the amount determined using the following equation: $E = \sum_{i=1}^{n}(A_i B_i C_i / D_i)$ where: E is the total allowable daily emissions of VOCs in pounds from all coatings subject to the same numerical emission limitation applied on P37. i is the subscript denoting an individual coating; n is the number of different coatings applied; A_i is the allowable emission rate from I.B.8.b.(1)(a) in pounds per gallon of coating, excluding water, delivered to the applicator; B_i is the amount of coating in gallons, delivered to the applicator during the actual production day; D_i is the theoretical volume fraction of solids in the coating necessary to meet the allowable emission rate from I.B.8.b.(1)(a) calculated from: $D_i = 1 - [A_i/P_i]$ where P_i is the density of the VOC used in the coating delivered to the applicator during the actual production day in pounds per gallon. If the coating does not contain any VOCs, or if the actual density cannot be demonstrated by the permittee, a value of 7.36 pounds per gallon shall be used for P. [s. NR 422.04(4), Wis. Adm. Code.] **(c)** The operating temperature of the thermal incinerator shall be maintained at no less than the minimum operating temperature determined to demonstrate compliance in the most recent stack test. [s. 285.65(3), Wis. Stats and s. NR 407.09(1)(a), Wis. Adm. Code]	**(e)** If operating a thermal oxidizer to achieve compliance as required by I.B.8.b.(2)(a)(ii), the permittee shall continuously monitor and record the operating temperature of the oxidizer. [ss. NR 439.055(1) and (2), and NR 439.04(5)(e), Wis. Adm. Code] **(f)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(g)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code]

8. P37, Stack S37 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.5 mmBtu/hr - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds - (Continued)		**(d)** Where the requirements of I.B.8.b.(1)(a) are met by means of a natural gas fired incinerator, use of the incinerator shall be required only during the ozone season, provided that operation of the incinerator is not required for purposes of occupational health or safety or for the control of toxic of hazardous substances, malodors, or other pollutants regulated by other sections of chs. 400 to 499, Wis. Adm. Code. [s. NR 425.04(4), Wis. Adm. Code] **(e)** Compliance Testing: Compliance emission testing of the incinerator shall be conducted as follows: (i) Testing shall be conducted within 30 days of starting operation of the incinerator after the expiration or revocation of any Cooperative Agreement entered into with the Department under s. 299.80 Wis. Stats to demonstrate compliance with volatile organic compound emission limitations; (ii) In accordance with the compliance testing requirements in I.B.19.b.(10(a). [ss. NR 439.075(1)(b) and NR 407.09(4)(a)1., Wis. Adm. Code]	**(h)** The permittee shall retain copies of the results of the tests required by I.B.8.b.(2)(e) at the facility for five years. [s. NR 439.04(1)(d), Wis. Adm. Code]
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas and/or propane in the curing oven and the thermal oxidizer. [44] [ss. 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the thermal oxidizer's and curing oven's fuel usage design capabilities.[45] [s. NR 439.04(1)(d), Wis. Adm. Code]

[44] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing these fuels. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

[45] These plans and specifications are sufficient because the curing oven and thermal oxidizer are designed to only burn natural gas and/or propane.

9. P38, Stack S38 - Two Screening Machines using the drying oven associated with P28 - Installed 1998

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: (i) The permittee may not use coatings or inks with a VOC content greater than 6.9 pounds per gallon as applied. (ii) The two screen printing machines coating usage may not exceed a combined total of 1,000 gallons per month based on a twelve month rolling average. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.9.a.(3)(c) and (d) to demonstrate compliance with I.B.9.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall keep the following records for each ink and other VOC containing materials used on P38: (i) A unique name of identification number for each ink and other VOC containing material, as applied; (ii) The VOC content of each ink and other VOC containing material, as applied, in pounds per gallon for inks used; (iii) The amount of each ink and other VOC containing material used on P38 during each calendar month; and (iv) The twelve month rolling average monthly coating usage. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

10. Process P56, Stack S56, Control Device C56 - Two Spray Booths PSB-WS-56 and PSB-WS-58 with natural gas fired oven SDO-WS-50

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Latest Available Control Techniques:[46] The permittee shall operate under an environmental management system (EMS) that addresses VOC emissions from the facility. This environmental management system shall include (but not be limited to): (i) evaluation of the facility's significant environmental impacts; (ii) establishment of objectives and targets for improving environmental performance based on consideration of the significant impacts; and (iii) implementation of a program to meet targets. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.10.a.(3)(c) and (d) to demonstrate compliance with I.B.10.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(1)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(2)** The permittee shall keep a copy of the environmental management system required by I.B.10.a.(1)(a) at the facility and make it available to authorized Department representatives upon request. [ss. NR 439.04(1)(d) and NR 439.05, Wis. Adm. Code] **(3)** The permittee shall keep records of: (a) Their evaluation of significant environmental impacts; (b) Objectives and targets for improving environmental performance as related to volatile organic compound emissions; (c) Programs implemented to met the objectives and targets related to volatile organic compound emissions; (d) The progress made in reaching specified objectives and targets related to volatile organic compound emissions. [s. NR 439.04(d), Wis. Adm. Code]
b. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.10.c.(2)(a) through (c) shall also serve as compliance	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The monitoring and records required by I.B.10.c.(3)(b) and (c) shall also

[46] For purposes of determining that 85% control of volatile organic compound emissions is infeasible a maximum emission rate of 14.26 pounds per hour was used. This emission rate is based on maximum material usage rates and maximum VOC contents. If the permittee intends to increase either value which in turn results in an increase in the maximum emission rate, the need for a construction permit modification and a re-evaluation of 85% control infeasibility must be made prior to making the changes.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		demonstration methods for condition I.B.10.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	serve as the monitoring and records for the visible emission limitations. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

10. Process P56, Stack S56, Control Device C56 - Two Spray Booths PSB-WS-56 and PSB-WS-58 with natural gas fired oven SDO-WS-50 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Particulate Matter Emissions	**(a)** Emissions from this process may not exceed the most restrictive of:[47] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis.	**(a)** The permittee shall operate overspray filters to control particulate matter emissions whenever the process is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.4 inches of water and not greater than 0.9 inches of water or within a different normal operating range approved by the Department in writing, whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a schedule for and perform periodic inspection,	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.10.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[47] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.3 tons per hour, a stack gas flow rate of 10,500 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
	Stats.]	maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	

11. P108, Stack S108 - Four Spraybooths (PSB-WS-108, PSB-WS-109, PSB-WS-110, and PSB-WS-111) with one natural gas/propane drying oven SDO-WS-112 rated at 1.2 mmBtu per hour and one electric drying oven - Installed 1994

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions may not exceed the most restrictive of:[48] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 0.22 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(a)** The permittee shall operate a paint overspray filter system to control particulate matter emissions whenever the process is in operation. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filter system within the normal operating ranges established according to the schedule outlined in I.B.19.c.(1)(a), whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across each paint overspray filter system once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.11.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[48] The limitation of 0.22 pounds per hour was determined as part of the review for construction permit 93-POY-092 and is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

11. P108, Stack S108 - Four Spraybooths (PSB-WS-108, PSB-WS-109, PSB-WS-110, and PSB-WS-111) with one natural gas/propane drying oven SDO-WS-112 rated at 1.2 mmBtu per hour and one electric drying oven - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: (i) The permittee may not use coatings or inks with a VOC content greater than 6.2 pounds per gallon as applied. (ii) The permittee shall use high volume low pressure (HVLP) spraying techniques on parts with the narrowest portion of the surface greater than 1.75 inches and the shallow recesses with depths of less than 0.25 inches. (iii) Air atomization techniques may be used on parts with the narrowest portion of the surface less than or equal to 1.75 inches, or the shallow recesses with depths of greater than or equal to 0.25 inches, or in cases where the permittee can show that customer finish requirements cannot be achieved with HVLP. (iv) The operating pressure of the HVLP spray gun may not exceed 10 pounds per square inch (guage). [s. NR 424.03(2)(b), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.11.b.(3)(c) through (f) to demonstrate compliance with I.B.11.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code] **(b)** The permittee shall operate a device that monitors the operating pressure of the HVLP spray gun whenever it is in use. [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall keep the following records for each coating and other VOC containing materials used on P108: (a) A unique name of identification number for each coating and other VOC containing material, as applied; and (b) The VOC content of each coating and other VOC containing material, as applied, in pounds per gallon. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code] **(e)** The permitee shall keep an inventory of all parts sprayed which includes: (i) A unique part identifier (name, number, or description); (ii) The narrowest surface dimension and the greatest shallow recess depth of each part; (iii) A log of whether HVLP or air atomization spray techniques where used on each part; and (iv) For parts that meet the dimension requirements of I.B.4.b.(1)(a)(ii) but customer finish requirements cannot be achieved with HVLP the permittee shall provide an explanation demonstrating that air atomization was necessary. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(f)** The permittee shall monitor and record the pressure drop across the HVLP spray gun once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code]

11. P108, Stack S108 - Four Spraybooths (PSB-WS-108, PSB-WS-109, PSB-WS-110, and PSB-WS-111) with one natural gas/propane drying oven SDO-WS-112 rated at 1.2 mmBtu per hour and one electric drying oven - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.11.a.(2)(a) and (b) shall also serve as compliance demonstration methods for condition I.B.11.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The monitoring and records required by I.B.11.a.(3)(b) shall also serve as the monitoring and records for the visible emission limitations. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

12. P113, Stack S113 - Four Spraybooths (PSB-WS-113, PSB-WS-114, PSB-WS-115, and PSB-WS-116) with one natural gas/propane drying oven SDO-WS-117 rated at 1.2 mmBtu per hour - Installed 1994

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Particulate Matter Emissions	**(a)** Emissions may not exceed the most restrictive of:[49] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 0.33 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(a)** The permittee shall operate a paint overspray filter system to control particulate matter emissions whenever the process is in operation. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filter system within the normal operating ranges established according to the schedule outlined in I.B.19.c.(1)(a), whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across each paint overspray filter system once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.12.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[49] The limitation of 0.33 pounds per hour was determined as part of the review for construction permit 93-POY-092 and is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

12. P113, Stack S113 - Four Spraybooths (PSB-WS-113, PSB-WS-114, PSB-WS-115, and PSB-WS-116) with one natural gas/propane drying oven SDO-WS-117 rated at 1.2 mmBtu per hour - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Volatile Organic Compounds	**(a)** Latest Available Control Techniques: (i) The permittee may not use coatings or inks with a VOC content greater than 6.2 pounds per gallon as applied. (ii) The permittee shall use high volume low pressure (HVLP) spraying techniques on parts with the narrowest portion of the surface greater than 1.75 inches and the shallow recesses with depths of less than 0.25 inches. (iii) Air atomization techniques may be used on parts with the narrowest portion of the surface less than or equal to 1.75 inches, or the shallow recesses with depths of greater than or equal to 0.25 inches, or in cases where the permittee can show that customer finish requirements cannot be achieved with HVLP. (iv) The operating pressure of the HVLP spray gun may not exceed 10 pounds per square inch (guage). [s. NR 424.03(2)(b), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.12.b.(3)(c) through (f) to demonstrate compliance with I.B.12.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code] **(b)** The permittee shall operate a device that monitors the operating pressure of the HVLP spray gun whenever it is in use. [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code] **(c)** The permittee shall keep the following records for each coating and other VOC containing materials used on P113: (a) A unique name of identification number for each coating and other VOC containing material, as applied; and (b) The VOC content of each coating and other VOC containing material, as applied, in pounds per gallon. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(d)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the of the coatings used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code] **(e)** The permitee shall keep an inventory of all parts sprayed which includes: (i) A unique part identifier (name, number, or description); (ii) The narrowest surface dimension and the greatest shallow recess depth of each part; (iii) A log of whether HVLP or air atomization spray techniques where used on each part; and (iv) For parts that meet the dimension requirements of I.B.12.b.(1)(a)(ii) but customer finish requirements cannot be achieved with HVLP the permittee shall provide an explanation demonstrating that air atomization was necessary. [s. NR 439.04(1)(d), Wis. Adm. Code.] **(f)** The permittee shall monitor and record the pressure drop across the HVLP spray gun once for every 8 hours of operation or once per day, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code]

12. P113, Stack S113 - Four Spraybooths (PSB-WS-113, PSB-WS-114, PSB-WS-115, and PSB-WS-116) with one natural gas/propane drying oven SDO-WS-117 rated at 1.2 mmBtu per hour - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.12.a.(2)(a) and (b) shall also serve as compliance demonstration methods for condition I.B.12.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The monitoring and records required by I.B.12.a.(3)(b) shall also serve as the monitoring and records for the visible emission limitations. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

13. Process P134, Stack S134, Control Device C134 - 4 Spray Booths PSB-WS-134, PSB-WS-135, PSB-WS-136, and PSB-WS-137 with electric oven SDO-WS-138

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Latest Available Control Techniques:[50] The permittee shall operate under an environmental management system (EMS) that addresses VOC emissions from the facility. This environmental management system shall include (but not be limited to): (i) evaluation of the facility's significant environmental impacts; (ii) establishment of objectives and targets for improving environmental performance based on consideration of the significant impacts; and (iii) implementation of a program to meet targets. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.13.a.(3)(a) and (b) to demonstrate compliance with I.B.13.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** The permittee shall keep a copy of the environmental management system required by I.B.13.a.(1)(a) at the facility and make it available to authorized Department representatives upon request. [ss. NR 439.04(1)(d) and NR 439.05, Wis. Adm. Code] **(c)** The permittee shall keep records of: (i) Their evaluation of significant environmental impacts; (ii) Objectives and targets for improving environmental performance as related to volatile organic compound emissions; (iii) Programs implemented to met the objectives and targets related to volatile organic compound emissions; (iv) The progress made in reaching specified objectives and targets related to volatile organic compound emissions. [s. NR 439.04(d), Wis. Adm. Code]
b. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.13.c.(2)(a) through (c) shall also serve as compliance demonstration methods for	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The monitoring and records required by I.B.13.c.(3)(b) and (c) shall also serve as the monitoring and records for the visible emission limitations. [s. NR

[50] For purposes of determining that 85% control of volatile organic compound emissions is infeasible a maximum emission rate of 7.5 pounds per hour was used. This emission rate is based on maximum material usage rates and maximum VOC contents. If the permittee intends to increase either value which in turn results in an increase in the maximum emission rate, the need for a construction permit modification and a re-evaluation of 85% control infeasibility must be made prior to making the changes.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		condition I.B.13.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	407.09(1)(c)1., Wis. Adm. Code]

13. Process P134, Stack S134, Control Device C134 - Four Spray Booths PSB-WS-134, PSB-WS-135, PSB-WS-136, and PSB-WS-137 with electric oven SDO-WS-138 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Particulate Matter Emissions	**(a)** Emissions from this process may not exceed the most restrictive of:[51] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (c) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(a)** The permittee shall operate overspray filters to control particulate matter emissions whenever the process is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.05 inches of water and not greater than 0.8 inches of water or within a differnt normal operating range approved by the Department in writing, whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.13.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[51] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.3 tons per hour, a stack gas flow rate of 9000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

14. Process P139, Stack S139, Control Device C139 - Four Spray Booths PSB-WS-139, PSB-WS-140, PSB-WS-141 and PSB-WS-142 with two electric ovens SDO-WS-143 and SDO-WS-144

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Latest Available Control Techniques:[52] The permittee shall operate under an environmental management system (EMS) that addresses VOC emissions from the facility. This environmental management system shall include (but not be limited to): (i) evaluation of the facility's significant environmental impacts; (ii) establishment of objectives and targets for improving environmental performance based on consideration of the significant impacts; and (iii) implementation of a program to meet targets. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.14.a.(3)(b) and (c) o demonstrate compliance with I.B14.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** The permittee shall keep a copy of the environmental management system required by I.CC.1.a.(1) at the facility and make it available to authorized Department representatives upon request. [ss. NR 439.04(1)(d) and NR 439.05, Wis. Adm. Code] **(c)** The permittee shall keep records of: (i) Their evaluation of significant environmental impacts; (ii) Objectives and targets for improving environmental performance as related to volatile organic compound emissions; (iii) Programs implemented to met the objectives and targets related to volatile organic compound emissions; (iv) The progress made in reaching specified objectives and targets related to volatile organic compound emissions. [s. NR 439.04(d), Wis. Adm. Code]
b. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.14.c.(2)(b) shall also serve as compliance	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code]

[52] For purposes of determining that 85% control of volatile organic compound emissions is infeasible a maximum emission rate of 21.49 pounds per hour was used. This emission rate is based on maximum material usage rates and maximum VOC contents. If the permittee intends to increase either value which in turn results in an increase in the maximum emission rate, the need for a construction permit modification and a re-evaluation of 85% control infeasibility must be made prior to making the changes.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		demonstration methods for condition I.B.14.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(b)** The monitoring and records required by I.B.14.c.(3)(b) and (c) shall also serve as the monitoring and records for the visible emission limitations. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

14. Process P139, Stack S139, Control Device C139 - Four Spray Booths PSB-WS-139, PSB-WS-140, PSB-WS-141 and PSB-WS-142 with two electric ovens SDO-WS-143 and SDO-WS-144 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Particulate Matter Emissions	**(a)** Emissions from this process may not exceed the most restrictive of:[53] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 0.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(a)** The permittee shall operate overspray filters to control particulate matter emissions whenever the process is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.05 inches of water and not greater than 0.7 inches of water or within a different normal operating range approved by the Department in writing, whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.14.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[53] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 0.2 tons per hour, a stack gas flow rate of 10,000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 0.45 pounds per hour is necessary to ensure the National Ambient Air Quality Standards for particulate matter are attained and maintained.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	

15. Process P145, Stack S145, Control Device C145 - One Spray Booth PSB-WS-145 with natural gas/propane fired oven SDO-WS-146

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Latest Available Control Techniques:[54] The permittee shall operate under an environmental management system (EMS) that addresses VOC emissions from the facility. This environmental management system shall include (but not be limited to): (i) evaluation of the facility's significant environmental impacts; (ii) establishment of objectives and targets for improving environmental performance based on consideration of the significant impacts; and (iii) implementation of a program to meet targets. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.15.a.(3)(b) and (c) to demonstrate compliance with I.B.15.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** The permittee shall keep a copy of the environmental management system required by I.B.15.a.(1)(a) at the facility and make it available to authorized Department representatives upon request. [ss. NR 439.04(1)(d) and NR 439.05, Wis. Adm. Code] **(c)** The permittee shall keep records of: (i) Their evaluation of significant environmental impacts; (ii) Objectives and targets for improving environmental performance as related to volatile organic compound emissions; (iii) Programs implemented to met the objectives and targets related to volatile organic compound emissions; (iv) The progress made in reaching specified objectives and targets related to volatile organic compound emissions. [s. NR 439.04(d), Wis. Adm. Code]
b. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The compliance demonstration methods outlined in I.B.15.c.(2) shall also serve as compliance demonstration methods	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The monitoring and records required by I.B.15.c.(3)(b) and (c) shall also serve as the monitoring and records for the visible emission limitations. [s. NR

[54] For purposes of determining that 85% control of volatile organic compound emissions is infeasible a maximum emission rate of 38.64 pounds per hour was used. This emission rate is based on maximum material usage rates and maximum VOC contents. If the permittee intends to increase either value which in turn results in an increase in the maximum emission rate, the need for a construction permit modification and a re-evaluation of 85% control infeasibility must be made prior to making the changes.

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
		for condition I.B.15.b.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	407.09(1)(c)1., Wis. Adm. Code]

15. Process P145, Stack S145, Control Device C145 - One Spray Booth PSB-WS-145 with natural gas/propane fired oven SDO-WS-146 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. Particulate Matter Emissions	**(a)** Emissions from this process may not exceed the most restrictive of:[55] (i) 0.40 pounds per 1000 pounds gas; (ii) $E = 3.59\ P^{0.62}$ where E is the emission limitation in pounds per hour and P is the process weight rate in tons per hour; or (iii) 1.45 pounds per hour. [ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code and s. 285.63(1)(b), Wis. Stats.]	**(a)** The permittee shall operate overspray filters to control particulate matter emissions whenever the process is operating. [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.] **(b)** The permittee shall maintain the pressure drop across the overspray filters at not less than 0.02 inches of water and not greater than 0.35 inches of water or within a different normal operating ranges approved by the Department in writing, whenever the process is operating. [s. NR 407.09(1), Wis. Adm. Code] **(c)** The permittee shall establish a schedule for and perform periodic inspection, maintenance and replacement of the overspray filters. This schedule shall be submitted to the Department according to I.B.19.c.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, US EPA Methods 5 and Method 202 shall be used to demonstrate compliance. [s. NR 439.06(1), Wis. Adm. Code] **(b)** The permittee shall monitor and record the pressure drop across the paint overspray filters once for every 8 hours of operation or once per day of operation, whichever yields the greater number of measurements. [s. NR 439.055, Wis. Adm. Code] **(c)** The permittee shall keep records of the results of the inspections required by I.B.15.c.(2)(c) which include: (i) the date of the inspection; (ii) the initials of the individual performing the inspection; (iii) a description of the findings of the inspection; (iv) a description of any repairs or maintenance or filter replacements performed. [s. NR 439.04(1)(d), Wis. Adm. Code]

[55] In this case the process weight rate is the most restrictive based on a maximum raw material throughput of 1.0 tons per hour, a stack gas flow rate of 12,000 ACFM, and an exhaust gas temperature of 80°F. The limitation of 1.45 pounds per hour is necessary to ensure the National Ambient Air Quality

Standards for particulate matter are attained and maintained.

16. Process P147, Stack S147, Control Device C147 - Two Screening Machines which use existing ovens associated with P76

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Latest Available Control Techniques:[56] The permittee shall operate under an environmental management system (EMS) that addresses VOC emissions from the facility. This environmental management system shall include (but not be limited to): (i) evaluation of the facility's significant environmental impacts; (ii) establishment of objectives and targets for improving environmental performance based on consideration of the significant impacts; and (iii) implementation of a program to meet targets. [s. NR 424.03(2)(c), Wis. Adm. Code]	**(a)** The permittee shall maintain the records required by I.B.16.a.(3)(b) and (c) to demonstrate compliance with I.B.16.a.(1)(a). [s. NR 407.09(4), Wis. Adm. Code]	**(a)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** The permittee shall keep a copy of the environmental management system required by I.B.16.a.(1)(a) at the facility and make it available to authorized Department representatives upon request. [ss. NR 439.04(1)(d) and NR 439.05, Wis. Adm. Code] **(c)** The permittee shall keep records of: (i) Their evaluation of significant environmental impacts; (ii) Objectives and targets for improving environmental performance as related to volatile organic compound emissions; (iii) Programs implemented to met the objectives and targets related to volatile organic compound emissions; (iv) The progress made in reaching specified objectives and targets related to volatile organic compound emissions. [s. NR 439.04(d), Wis. Adm. Code]

[56] For purposes of determining that 85% control of volatile organic compound emissions is infeasible a maximum emission rate of 18.92 pounds per hour was used. This emission rate is based on maximum material usage rates and maximum VOC contents. If the permittee intends to increase either value which in turn results in an increase in the maximum emission rate, the need for a construction permit modification and a re-evaluation of 85% control infeasibility must be made prior to making the changes.

16. Process P147, Stack S147, Control Device C147 - Two Screening Machines which use existing ovens associated with P76 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Visible Emissions	**(a)** 20% opacity [s. NR 431.05, Wis. Adm. Code]	**(a)** The permittee shall only fire natural gas or propane in any non-electric oven associated with process P147. [57] [ss. NR 407.09(1)(c)1.b., Wis. Adm. Code and 285.65(3) and 285.63(1)(a), Wis. Stats.]	**(a)** Reference Test Method for Visible Emissions: Whenever compliance emission testing is required, US EPA Method 9 shall be used to demonstrate compliance. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(b)** The permittee shall retain on site, plans and specifications that indicate the fuel usage design capabilities of any non-electric oven associated with P147. [s. NR 439.04(1)(d), Wis. Adm. Code]

[57] It is not expected that the visible emission limitation of 20% opacity would be exceeded while firing natural gas or propane. Therefore restricting the type of fuel used is adequate to ensure compliance with the emission limitation.

17. Process P149, Stack S29 - One Roll Coating Machine which uses natural gas/propane oven associated with P29

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** No owner or operator of a miscellaneous metal parts or products coating line using a baked or specially cured coating technology may cause, allow or permit the emissions of any VOCs in excess of: (i) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (ii) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (iii) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis Adm. Code]	**(a)** The permittee shall comply with the limitations of I.B.17.a.(1)(a) by the application of low solvent content coating technology [s. NR 422.04(2)(a), Wis. Adm. Code]	**(a)** The permittee shall collect and record: (i) A unique name or identification number for each coating, as applied; (ii) The VOC content of each coating, as applied, in units of pounds of VOC per gallon, excluding water. [s. NR 439.04(5)(a), Wis. Adm. Code] **(b)** The permittee shall use U.S. EPA Method 24, or ink manufacturer's formulation data to determine the VOC content of the of the inks used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code] **(c)** Reference Test Method for Volatile Organic Compound Emissions: Whenever compliance emission testing is required, US EPA Methods 18, 25, 25A or 25B shall be used to demonstrate compliance. [ss. NR 439.06(3)(a) and NR 407.09(4)(a)1., Wis. Adm. Code] **(d)** Reference Test Method for Volatile Organic Compound Content: Whenever compliance testing is required, U.S. EPA Method 24 shall be used to demonstrate compliance with the VOC content limitations. [s. NR 439.06(3)(b), Wis. Adm. Code]

17. Process P149, Stack S29 - One Roll Coating Machine which uses natural gas/propane oven associated with P29 - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compounds - (Continued)	**(b)** Monthly VOC emissions from this process line may not exceed 1666 pounds per month.[58] [s. NR 406.04(1)(g), Wis. Adm. Code]	**(b)** Each calendar month the permittee shall calculate the total volatile organic compound emissions from process P149 as follows: [s. NR 407.09(4)(a)1., Wis. Adm. Code] $E_{monthly} = [(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + ... + (U_n \times W_n \times C_n) +]$ where: $E_{monthly}$ is the monthlyVOC emissions (pounds/month); U is the amount of each ink, coating, clean-up solvent, or other VOC containing material used during the month (gallons/month); W is the density of each ink, coating, clean-up solvent, or other VOC containing material used during the month (pounds/gallon); C is the VOC content of each ink, coating, clean-up solvent, or other VOC containing material used during the month expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25); n identifies each ink, coating, clean-up solvent or other VOC containing material used during the month. This calculation shall be performed within fifteen calendar days of the end of each calendar month.	**(e)** The permittee shall keep records of the following: (i) A unique name or identification number for each ink, coating, clean-up solvent, or other VOC containing material used on process P149; (ii) The VOC content, expressed as a weight fraction (C_n) of each ink, coating, clean-up solvent, or other VOC containing material used on process P149; (iii) The amount of each ink, coating, clean-up solvent, or other VOC containing material used in gallons per month (U_n); (iv) The density of each ink, coating, clean-up solvent, or other VOC containing material used in pounds per gallon (W_n); and (v) The total monthly VOC emissions from process P149 in pounds per month ($E_{monthly}$), as calculated in I.B.17.a.(2)(b). [s. NR 439.04(1)(d), Wis. Adm. Code]

[58] The permittee elected this restriction to ensure that the process was not subject to construction permit requirements.

18. Facility Wide Synthetic Minor Conditions

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions	**(a)** Volatile organic compound emissions from the entire facility may not exceed 16,300 pounds per month averaged over each 12 consecutive month period. [s. 285.65(7), Wis. Stats.]	**(a)** Each day the permittee shall calculate the total volatile organic compound emissions from the facility as follows: [s. NR 407.09(4)(a)1., Wis. Adm. Code] $E_{daily} = [(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + ... + (U_n \times W_n \times C_n)]$ where: E_{daily} is the daily VOC emissions (pounds/day); U is the daily usage of each ink, coating, solvent, or other VOC containing material used during the day (gallons/day); W is the density of each ink, coating, solvent, or other VOC containing material used during the day (pounds/gallon); C is the VOC content of each ink, coating, solvent, or other VOC containing material used during the day expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25); and n identifies each ink, coating, solvent or other VOC containing material used during the day.	**(a)** The permittee shall keep daily records of the following: (i) A unique name or identification number for each ink, coating, solvent, or other VOC containing material used at the facility; (ii) The VOC content, expressed as a weight fraction (C_n) of each ink, coating, solvent, or other VOC containing material used at the facility; (iii) The amount of each ink, coating, solvent, or other VOC containing material used in gallons per day (U_n); (iv) The density of each ink, coating, solvent, or other VOC containing material used in pounds per gallon (W_n); and (v) The total daily VOC emissions from the facility in pounds per day (E_{daily}), as calculated in I.B.18.a.(2)(a). [s. NR 439.04(1)(d), Wis. Adm. Code] **(b)** The permittee shall keep monthly records of: (i) The monthly sum of the daily VOC emissions as calculated in I.B.18.a.(2).(b), (ΣE_{daily}); (ii) The amount of spent ink, coating, solvent, or other VOC containing material recovered each month and shipped off site in gallons per month (S_m); (iii) The VOC content of each spent ink, coating, solvent or other VOC containing material recovered each month and shipped off site in pounds per gallon (P_m); (iv) The total monthly VOC emissions from the facility in pounds per month as calculated in I.B.18.a.(2).(b), ($E_{monthly}$); and (v) The total amount of VOC emitted from the facility averaged over each 12 consecutive month period in pounds per month as calculated in I.B.18.a.(2).(c). [s. NR 439.04(1)(d), Wis. Adm. Code]

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
a. Volatile Organic Compound Emissions - (Continued)		**(b)** For each calendar month the permittee shall calculate the total monthly VOC emissions as follows. This calculation shall be performed within fifteen calendar days of the end of each month. [s. NR 407.09(4)(a)1., Wis. Adm. Code] $E_{monthly} = \Sigma E_{daily} - [(S_1 \times P_1) + (S_2 \times P_2) + ... + (S_m \times P_m)]$ where: $E_{monthly}$ is the monthly VOC emissions (pounds/month) taking into account credit for the waste solvents that are collected and shipped off site for disposal; ΣE_{daily} is the sum of the daily VOC emissions calculated in I.B.18.a.(2).(a) totaled for the calendar month; S is the amount of each spent ink, coating, solvent or other VOC containing material recovered each month and shipped off site (gallons/month); P is the VOC content of each spent ink, coating, solvent or other VOC containing material recovered each month and shipped off site in pounds per gallon; m identifies each spent ink, coating, solvent or other VOC containing material recovered each month and shipped off site. **(3)** To demonstrate compliance with condition I.B.18.a.(1).(a), the permittee shall calculate the total tons of volatile organic compound emissions from the facility, averaged over each 12 consecutive month period by dividing the total monthly volatile organic compound emissions as calculated in I.B.18.a.(2)(b) for each 12 consecutive month period by 12. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(c)** The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content (C_n) and the density (W_n) of the of the inks, coatings, solvents or other VOC containing materials used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code] **(d)** The permittee shall analyze the spent ink, coating, solvent and other VOC containing material recovered and shipped off site to determine the VOC content (P) no less than: (i) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (ii) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Hazardous Air Pollutants Regulated by the Clean Air Act	**(a)** The permittee may not emit any single hazardous air pollutant regulated by the Clean Air Act at a rate greater than 1650 pounds per month averaged over each 12 consecutive month period. [s. 285.65.(7), Wis. Stats.] **(b)** The permittee may not emit a total of all hazardous air pollutants regulated by the Clean Air Act combined at a rate greater than 4150 pounds per month averaged over each 12 consecutive month period. [s. 285.65.(7), Wis. Stats.]	**(a)** Each day the permittee shall calculate the total facility emissions of <u>each hazardous air pollutant</u> regulated by the Clean Air Act as follows:[59] $E_x = [(U_1 \times W_1 \times H_1) + (U_2 \times W_2 \times H_2) + ... + (U_n \times W_n \times H_n)]$ where: E_x is the daily emissions of each hazardous air pollutant regulated by the Clean Air Act (pounds/day); x identifies each HAP emitted from the facility U is the daily usage of each ink, coating, solvent, or other HAP containing material used during the day (gallons/day); W is the density of each ink, coating, solvent, or other HAP containing material used during the day (pounds/gallon); H is the HAP content of each ink, coating, solvent, or other HAP containing material used during the day expressed as a weight fraction (i.e. if a material is 25% HAP by weight H would be 0.25); and n identifies each ink, coating, solvent or other HAP containing material used during the day.	**(a)** The permittee shall keep daily records of the following: (i) A unique name or identification number for each ink, coating, solvent, or other HAP containing material used at the facility; (ii) The weight fraction of each HAP contained in the material (H_n) of each ink, coating, solvent, or other HAP containing material used at the facility; (iii) The amount of each ink, coating, solvent, or other HAP containing material used in gallons per day (U_n); (iv) The density of each ink, coating, solvent, or other HAP containing material used in pounds per gallon (W_n); (v) The facility total daily emissions of each HAP in pounds per day (E_x), as calculated in I.b.18.B.(2)(a); and (vi) The total daily HAP emissions from the facility in pounds per day (E_{hap}), as calculated in I.B.18.b.(2)(d). [s. NR 439.04(1)(d), Wis. Adm. Code]

[59] This calculation shall be performed for each hazardous air pollutant regulated by the Clean Air Act that is emitted from the facility.

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Hazardous Air Pollutants Regulated by the Clean Air Act - (Continued)		**(b)** For each calendar month the permittee shall calculate the total monthly emissions of <u>each</u> hazardous air pollutant regulated by the Clean Air Act as follows. This calculation shall be performed within fifteen calendar days of the end of each month. [s. NR 407.09(4)(a)1., Wis. Adm. Code] $E_y = (\Sigma E_x)_i - [(S_1 \times I_1) + (S_2 \times I_2) + ... + (S_m \times I_m)]$ where: E_y is the monthly emissions of each HAP (pounds/month) taking into account credit for the waste solvents that are collected and shipped off site for disposal; $(\Sigma E_x)_i$ is the sum of the daily emissions of <u>each</u> HAP (i) calculated in I.B.18.b.(2)(a) totaled for the calendar month; S is the amount of each spent ink, coating, solvent or other HAP containing material recovered each month and shipped off site (gallons/month); I is the HAP content of each spent ink, coating, solvent or other HAP containing material recovered each month and shipped off site in pounds per gallon; and m identifies each spent ink, coating, solvent or other HAP containing material recovered each month and shipped off site.	**(b)** The permittee shall keep monthly records of: (i) The monthly sum of the daily emissions of each HAP regulated by the Clean Air Act as calculated in I.B.18.b.(2)(b), $((\Sigma E_x)_i)$; (ii) The amount of spent ink, coating, solvent, or other HAP containing material recovered each month and shipped off site in gallons per month (S_m); (iii) The amount of each HAP contained in each spent ink, coating, solvent or other HAP containing material recovered each month and shipped off site in pounds per gallon (I_m); (iv) The total monthly emissions of each HAP in pounds per month as calculated in I.B.18.b.(2)(b), (E_y); (v) The total amount of each HAP emitted from the facility averaged over each 12 consecutive month period in pounds per month as calculated in I.B.18.b.(2)(c); (vi) The total monthly emissions of all HAPs combined in pounds per month as calculated in I.B.18.b.(2)(d); and (vii) The total amount of all HAPs combined emitted from the facility averaged over each 12 consecutive month period in pounds per month as calculated in I.B.18.b.(2)(e). [s. NR 439.04(1)(d), Wis. Adm. Code] **(c)** The permittee shall use coating manufacturer's formulation data to determine the HAP content (H_n) of the of the inks, coatings, solvents or other HAP containing materials used. [s. NR 439.04(1)(d), Wis. Adm. Code]

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Hazardous Air Pollutants Regulated by the Clean Air Act - (Continued)		**(c)** To demonstrate compliance with condition I.B.18.b.(1)(a), the permittee shall calculate the emissions of <u>each</u> hazardous air pollutant regulated by the Clean Air Act, averaged over each 12 consecutive month period by dividing the total monthly emissions of each hazardous air pollutant regulated by the Clean Air Act as calculated in I.B.18.b.(2)(b) for each 12 consecutive month period by 12. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(d)** Each day the permittee shall calculate the <u>total</u> emissions of hazardous air pollutants regulated by the Clean Air Act as follows: $E_{hap} = \Sigma E_x$ where: E_{hap} is the daily total emissions of all hazardous air pollutants regulated by the Clean Air Act that are emitted by the facility (pounds/day); E_x is the daily emissions of each hazardous air pollutant regulated by the Clean Air Act (pounds/day) as calculated in I.B.18.b.(2)(a); x identifies each HAP emitted from the facility. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(d)** The permittee shall analyze the spent ink, coating, solvent and other HAP containing material recovered and shipped off site to determine the HAP content (H) no less than: (i) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (ii) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
b. Hazardous Air Pollutants Regulated by the Clean Air Act - (Continued)		**(e)** For each calendar month the permittee shall total the daily emissions of <u>all</u> hazardous air pollutant regulated by the Clean Air Act combined by totaling the monthly emissions of each HAP (E_y) as calculated in I.B.18.b.(2)(b) to determine the monthly emissions in pounds per month. This calculation shall be performed within fifteen calendar days of the end of each month. [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(f)** To demonstrate compliance with condition I.B.18.b.(1)(b), the permittee shall calculate the total emissions of <u>all</u> hazardous air pollutants regulated by the Clean Air Act, averaged over each 12 consecutive month period by dividing the total monthly emissions of all hazardous air pollutants regulated by the Clean Air Act as calculated in I.B.18.b.(2)(e) for each 12 consecutive month period by 12. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITATIONS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. * Formaldehyde	**(a)** * The permittee may not emit formaldehyde at a rate greater than 20.8 pounds per month averaged over each 12 consecutive month period. [s. 285.65.(7), Wis. Stats.]	**(a)** * Each month the permittee shall calculate the total facility emissions of formaldehyde as follows: $E_{form} = [(V_1 \times W_1 \times F_1) + (V_2 \times W_2 \times F_2) + ... + (V_n \times W_n \times F_n)]$ $- [(R_1 \times G_1) + (R_2 \times G_2) + ... + (R_m \times G_m)]$ where: E_{form} is the monthly emissions of formaldehyde (pounds/month); V is the monthly usage of each ink, coating, solvent, and other material containing formaldehyde used during the month (gallons/month); W is the density of each ink, coating, solvent, or other material containing formaldehyde used during the month (pounds/gallon); F is the formaldehyde content of each ink, coating, solvent, or other material containing formaldehyde used during the month expressed as a weight fraction (i.e. if a material is 25% formaldehyde by weight F would be 0.25); n identifies each ink, coating, solvent or other material containing formaldehyde used during the month; R is the amount of each spent ink, coating, solvent or other material containing formaldehyde recovered each month and shipped off site (gallons/month); G is the formaldehyde content of each spent ink, coating, solvent or other material containing formaldehyde recovered each month and shipped off site in pounds per gallon; m identifies each spent ink, coating, solvent or other material containing formaldehyde recovered each month and shipped off site during. [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(b)** *To demonstrate compliance with condition I.B.18.c.(1)(a), the permittee shall calculate the emissions of formaldehyde, averaged over each 12 consecutive month period by dividing the total monthly emissions of formaldehyde as calculated in I.B.18.c.(2)(a) for each 12 consecutive month period by 12. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(a)** *The permittee shall keep monthly records of the following: (i) A unique name or identification number for each ink, coating, solvent, or other material containing formaldehyde used at the facility; (ii) The weight fraction of formaldehyde (F_n) of each ink, coating, solvent, or other material used at the facility; (iii) The amount of each ink, coating, solvent, or other material containing formaldehyde used in gallons per month (V_n); (iv) The density of each ink, coating, solvent, or other material containing formaldehyde used in pounds per gallon (W_n); (iv) The amount of spent ink, coating, solvent, or other material containing formaldehyde recovered each month and shipped off site in gallons per month (R_m); (v) The amount of each spent ink, coating, solvent or other material containing formaldehyde recovered each month and shipped off site in pounds per gallon (G_m); (vi) The facility total monthly emissions of formaldehyde in pounds per month (E_{form}), as calculated in I.B.18.c.(2)(a); and (vii) The total amount of formaldehyde emitted from the facility averaged over each 12 consecutive month period in tons per month as calculated in I.B.18.c.(2)(b). [s. NR 439.04(1)(d), Wis. Adm. Code]

Continued on Next Page...

18. Facility Wide Synthetic Minor Conditions - (Continued)

POLLUTANT	(1) LIMITS	(2) COMPLIANCE DEMONSTRATION METHODS	(3) REFERENCE TEST METHODS, RECORDKEEPING, AND MONITORING REQUIREMENTS
c. * Formaldehyde - (Continued)			**(b)** *The permittee shall use coating manufacturer's formulation data to determine the formaldehyde (F_n) of the of the inks, coatings, solvents or other materials containing formaldehyde used at the facility. [s. NR 439.04(1)(d), Wis. Adm. Code] **(c)** *The permittee shall analyze the spent ink, coating, solvent and other materials containing formaldehyde recovered and shipped off site to determine the HAP content (G) no less than: (i) each time there is a change to materials or process operations that may affect the waste stream; or (ii) annually, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code] **(d)** Reference Test Method for Formaldehyde Emissions: Whenever compliance emission testing is required, US EPA Method 0011 shall be used to demonstrate compliance. [s. NR 439.06(8), Wis. Adm. Code]

19. Conditions Applicable to the Entire Facility

CONDITION TYPE	(1) CONDITIONS
a. Reporting	**(a)** Submit the results of monitoring or a summary of monitoring results required by this permit to the Department annually. (i) The time period to be addressed by the submittal are: January 1 to December 31. (ii) The report shall be submitted to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI 54601, phone (608) 785-9000 within 30 days after the end of each reporting period. (iii) All deviations from and violations of applicable requirements shall be clearly identified in the submittal. (iv) Each submittal shall be certified by a responsible official as to the truth, accuracy and completeness of the report. [s. NR 439.03(1)(b), Wis. Adm. Code] **(b)** Submit a certification of compliance with the requirements of this permit to the Department annually. (i) The time period to be addressed by the report is the January 1 to December 31 period which precedes the report. (ii) The report shall be submitted to the Wisconsin Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI 54601, phone (608) 785-9000 within 30 days after the end of each reporting period. (iii) The information included in the report shall comply with the requirements of Part II Section N of this permit. (iv) Each report shall be certified by a responsible official as to the truth, accuracy and completeness of the report. [s. NR 439.03(1)(c), Wis. Adm. Code]
b. Compliance Testing	**(a)** Whenever compliance emission tests are required by the Department: (i) Any compliance emission tests required by the Department shall be conducted while operating at 100% capacity. If operation at 100% capacity is not feasible, the sources shall operate at a capacity which is approved by the Department in writing. (ii) The reference test methods outlined in this permit shall be used unless an alternate, U.S. EPA approved, test method is approved by the Department in writing. (iii) The Department shall be informed at least 20 working days prior to any tests so a Department representative can witness the testing. (iv) At the time of notification, a compliance test plan shall also be submitted for approval. (v) Two copies of the report on any required tests shall be submitted to the Department for evaluation within 60 days after the tests. [s. NR 439.07, Wis. Adm. Code]

19. Conditions Applicable to the Entire Facility - Continued

CONDITION TYPE	(1) CONDITIONS
c. Compliance Plan and Schedule	**(a)** The permittee shall take the following actions as outlined below to comply with conditions I.A.3.b.(8), I.A.3.b.(10), I.A.3.b.(12), I.A.3.b.(15), I.A.3.b.(18), I.A.3.b.(21), I.B.11.a.(2)(b), I.B.10.c.(2)(c), I.B.11.a.(2)(c), I.B.12.a.(2)(b), I.B.12.a.(2)(c), I.B.13.c.(2)(c), I.B.14.c.(2)(c), and I.B.15.c.(2)(c): (i) Establish normal operating ranges for the pressure drop across each of the overspray filter system controlling P108 no later than **60 days** after the date of issuance of this permit; (ii) Establish normal operating ranges for the pressure drop across the overspray filter system controlling P113 no later than **60 days** after the date of issuance of this permit; and (iii) Establish schedules for periodic inspection, maintenance, and replacement of the overspray filters controlling P56, P108, P113, P134, P139, and P145 no later than **60 days** after the date of issuance of this permit. [s. NR 407.09(4)(b), Wis. Adm. Code and ss. 285.64(1)(a)1. and 285.63(1)(b), Wis. Stats.] **(b)** The permittee shall submit compliance progress reports to the La Crosse Area Office Air Program, 3550 Mormon Coulee Road, Room 104, La Crosse, WI 54601, every 6 months from the date of issuance of this permit until the permittee completes all the items required by condition I.B.19.c.(1)(a). [ss 285.64(1)(a)2., Wis. Stats. and NR 407.09(4)(b), Wis. Adm. Code] **(c)** The compliance progress reports required in condition I.B.19.c.(1)(b) above shall contain: (i) A description of the actions taken and the actions completed to comply with the specific actions outlined in condition I.B.19.c.(1)(a). (ii) The date specified in condition I.B.19.c.(1)(a) for completing the activities outlined above. (iii) The date when the activities were actually completed. (iv) If an activity was not completed by the date specified in condition I.B.19.c.(1)(a) above: a) An explanation of why the date was not met; and b) A description of any preventive or corrective measures adopted. [s. NR 407.09(4)(b), Wis. Adm. Code]